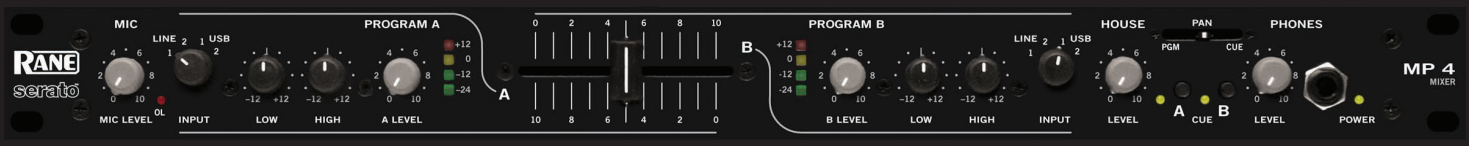
MIC
LINE
USB
PROGRAM A
PROGRAM B
HOUSE
PAN
PGM
CUE
PHONES
MIC LEVEL
OL
INPUT
LOW
HIGH
A LEVEL
B LEVEL
LEVEL
CUE
POWER
A
B
MP 4
MIXER

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.

2. Keep these instructions.

3. Heed all warnings.

4. Follow all instructions.

5. Do not use this apparatus near water.

6. Clean only with a dry cloth.

7. Do not block any ventilation openings. Install in accordance with manufacturer's instructions.

8. Do not install near any heat sources such as radiators, registers, stoves, or other apparatus (including amplifiers) that produce heat.

9. Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10. Protect the power cord and plug from being walked on or pinched particularly at plugs, convenience receptacles, and the point where it exits from the apparatus.

11. Only use attachments & accessories specified by Rane.

12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.

14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

15. The plug on the power cord is the AC mains disconnect device and must remain readily operable.

16. This apparatus shall be connected to a mains socket outlet with a protective earthing connection.

17. When permanently connected, an all-pole mains switch with a contact separation of at least 3 mm in each pole shall be incorporated in the electrical installation of the building.

18. If rack-mounting, provide adequate ventilation. Equipment may be located above or below this apparatus, but some equipment (like large power amplifiers) may cause an unacceptable amount of hum or may generate too much heat and degrade the performance of this apparatus.

19. This apparatus may be installed in an industry standard equipment rack. Use screws through all mounting holes to provide the best support.

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

INTRODUCTION

Beyond the Quick Start guide, please read through this manual to get the most from your MP 4 and the included Scratch LIVE software. Keep this manual in a safe place. If you lose yours, a new copy may be downloaded at www.rane.com/mp4.html.

To keep up with the latest tips, and to check for software updates for your MP 4, visit the official Scratch LIVE Forum at scratchlive.net.

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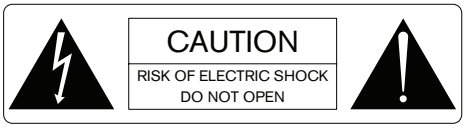
WARNING

To reduce the risk of electrical shock, do not open the unit. No user serviceable parts inside. Refer servicing to qualified service personnel.

The symbols shown below are internationally accepted symbols that warn of potential hazards with electrical products.



This symbol indicates that a dangerous voltage constituting a risk of electric shock is present within this unit.

This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

MINIMUM SYSTEM REQUIREMENTS

• Computer with USB 1 port supporting Full Speed Mode (USB 1.1).
• Screen resolution 1024 x 768 or higher.
• Hard drive space for storing music.

PC

• Windows XP with Service Pack 2 or Vista with Service Pack 1
• Pentium 4 / 1.5 GHz
• 1 GB RAM.

MAC

• OSX 10.3
• G4 / 1 GHz
• 1 GB RAM.

Scratch LIVE is compatible with Intel-based Mac computers.

CHECK LIST

These items are included with the MP4 in the box:

• Scratch LIVE software install disc.
• 1 USB cable.
• IEC C5 line cord.
• Package of 4 rubber feet.
• Quick Start Guide.
• This manual.

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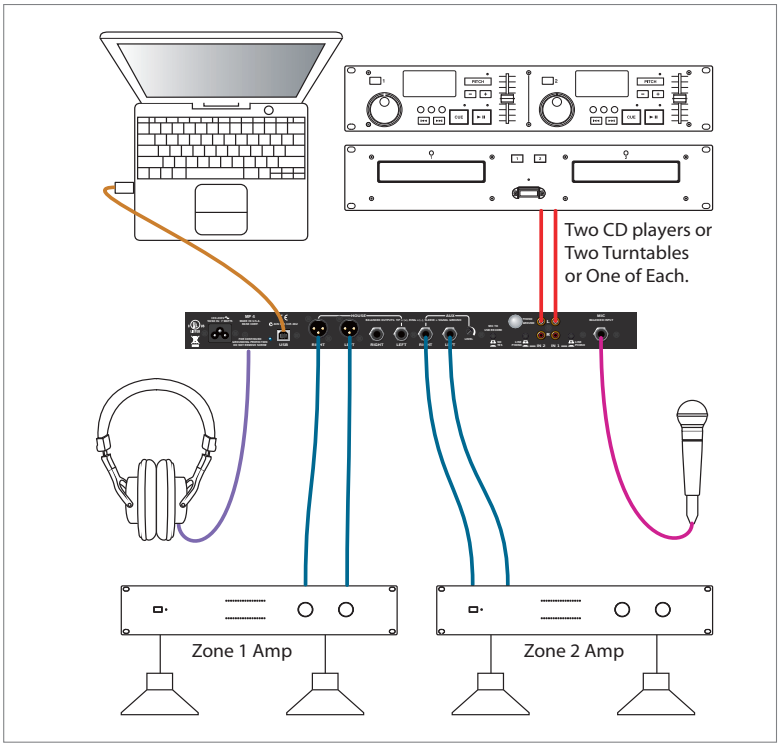
MP 4 OVERVIEW



The MP 4 combines Rane mixer technology and Serato Scratch LIVE software. The result is a mixer with the flexibility of playing digital music directly from your computer while still supporting traditional analog inputs. This two-bus mixer is able to simultaneously play stereo analog sources, play stereo digital files, and digitally record Mic, Program A, Program B or Main-mix. You can also operate the MP 4 as a stand-alone analog mixer without a computer, or use it as a high-quality six-channel sound card with Serato Scratch LIVE software, without analog sources.

The MP 4 is targeted at mobile DJ, night club, remix project studio and post production applications. The Scratch LIVE MP 4 control screen includes many advanced features that enhance its ability to mix and blend:

- Play / pause control, both forward and reverse
- Pitch and bend controls for fine tuning beat matching
- Fast forward and reverse
- Multiple cue points per track
- Censor (reverse sections without losing play position)
- Fader Start; Scrub track with mouse; Autoplay Crate

The MP 4 is not a performance scratch mixer. It does not use control vinyl or CDs and does not have a scratch fader.

While the MP 4 may be used as a generic sound card with other software applications, for best performance and support we highly recommend using Scratch LIVE. Performance using other applications may vary and compatibility is not guaranteed.

The computer sees the MP 4 as three USB audio devices (two stereo play and one stereo record). ASIO (for PC) and CoreAudio (for Mac) drivers are included. The digital audio format is 24-bit, 3-byte PCM with a 48 kHz sample rate.

INPUTS

PROGRAM A and B INPUT switches select between the two LINE and two USB Inputs. LINE 1 and LINE 2 are set for PHONO level or LINE level using the associated push switch on the rear panel.

PROGRAM A and B each feature LOW and HIGH tone and LEVEL controls. Four-segment program level meters indicate signals from –24 dBu to +12 dBu. Clipping occurs at +22 dBu.

The balanced MIC input features a full-range LEVEL control and is mixed with the Main-mix post-crossfader.

OUTPUTS

Two stereo analog outputs are provided. The HOUSE output is available on both balanced XLR and balanced ¼" TRS connectors. The AUX output is available on balanced ¼" TRS connectors and has an independent rear panel LEVEL control.

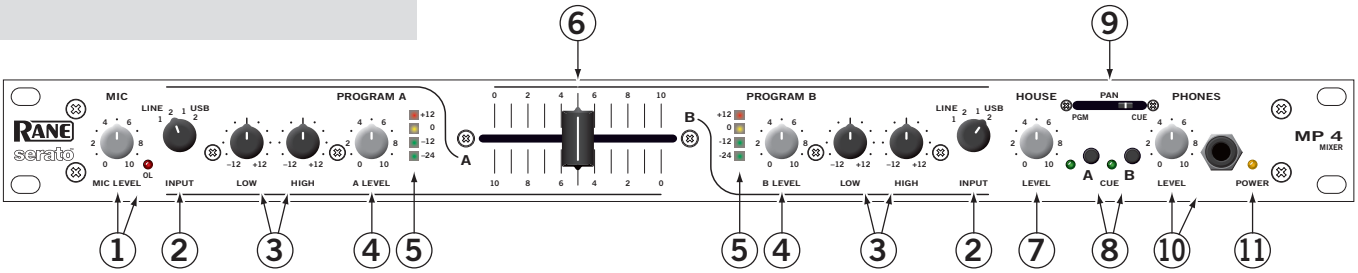
RECORDING

One USB stereo output is available for recording. Scratch LIVE software allows selecting Mic, Program A, Program B or Main-mix as the source. The MIC TO USB RECORD switch located on the rear panel determines if the Mic is included in the USB Main-mix record output. The ability to record lets you archive your analog sources, record samples to use in your performance or to record your performance.

CUEING

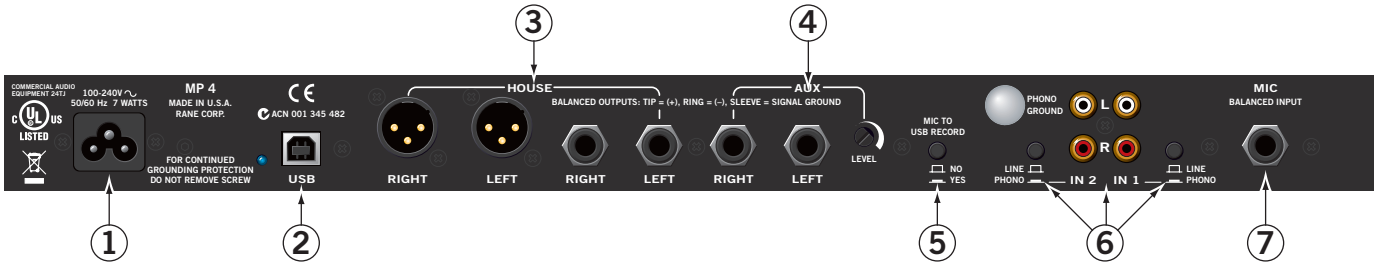
Headphone Cueing allows independent selection of the Program A or Program B input, making it possible to Cue any source (digital or analog) with the push of a switch. The PAN PGM / CUE control lets you Pan between the selected Cue input (pre-Crossfader) and the Main-mix (post-Crossfader).

FRONT PANEL DESCRIPTION



	FEATURE	DESCRIPTION
1	Mic Level Control	Adjusts the Level of the MIC Input. The OL (overload) indicator lights when the maximum mic level has been reached, 3 dB before clipping. If this lights up, either turn the MIC LEVEL down, or stop yelling.
2	Program Input Selectors	Provide selection of LINE 1, LINE 2, USB 1 or USB 2 Inputs for each of the PROGRAM A or PROGRAM B channels. LINE Inputs may each be set for PHONO or LINE level via the rear panel switch (see Rear Panel 6).
3	Program Low And High Tones	Adjust the equalization for each of the PROGRAM channels. Pointing these controls straight up at their center detents takes the tone controls out of the signal path. This is not designed to be the only equalizer in the system, this is intended to provide EQ between varying program materials. We recommend an external graphic equalizer for the best system sound, connected between the HOUSE OUTPUTS and the amplifier.
4	Program Level Controls	Set the volume of each PROGRAM INPUT, as you would expect! These controls are pre-Crossfader, so both Program Level controls also depend on the Crossfader setting (see 6).
5	Program Meter	This four-segment meter shows signal presence (at -24 dBu), optimum signal level (at around 0 dBu), and a warning to turn down the associated LEVEL control if the +12 dBu indicator lights up.
6	Active Crossfader	Controls the mix of PROGRAM A and B LEVELS in a logical manner. When the Crossfader is all the way left, only PROGRAM A is heard. When it's all the way right, only PROGRAM B is heard. When it's in the middle, both PROGRAM A and B are mixed together equally. This is an Active Crossfader™ which uses a VCA to deliver an extended life with reduced travel noise, but to insure trouble-free operation, see Fader Cleaning on page 4.
7	House Level Meter	Adjusts the Output Level of the Main-mix to the HOUSE Outputs.
8	Cue Switches	Select Program A or B in any combination to the PHONES. The associated yellow indicator lights when a CUE is activated and pressed in. Depressing a button sends Program signals to the CUE side of the PAN control. For example, when the Crossfader is to the left (playing Program A to the House), listen to CUE B (Program B) on the headphones to audition, match beats or prepare a starting point.
9	Pan Control	Changes the relative levels of the Cue and Program mixed together in stereo to the PHONES. Adjust this control anywhere between Program and Cue: PGM follows the Main-mix (House) Output. CUE is determined by the CUE switches and only goes to the headphones.
10	Phones Level And Headphone Jack	As you guessed, plug your headphones in here and adjust the overall volume with the LEVEL control. CUE 8 and PAN 9 select the source.
11	Power Indicator	Illuminates to let you know the MP 4 is plugged in and ready to go.

REAR PANEL DESCRIPTION



	FEATURE	DESCRIPTION
1	Universal Voltage Input	Via a miniature IEC 60320 C6 appliance inlet. This mates with an IEC 60320 C5 line cord (USA domestic). Do not lift the ground connection!
2	USB Connection	Attach the included USB cable from here to the computer. The blue LED illuminates when the cable is connected and receiving power. USB delivers two stereo inputs from the computer to the mixer (USB 1 and USB 2), and one stereo record signal from the mixer to the computer.
3	House Output	The front panel HOUSE LEVEL control affects the volume at this Output. Connect either the XLR or ¼" TRS (tip-ring-sleeve) jacks to a balanced equalizer or amplifier. Both Output types may be used simultaneously if needed. Though not recommended, unbalanced ¼" TS (tip-sleeve) cables may be used for short runs (under 3 meters [10 feet]) to an amplifier with unbalanced inputs. See the RaneNote "Sound System Interconnection" for wiring recommendations.
4	AUX Output	This delivers the same signal as the HOUSE Output, but has its own rear panel LEVEL control. This Output is not affected by the front panel HOUSE LEVEL control. These balanced ¼" TRS (tip-ring-sleeve) Outputs connect to a balanced equalizer or amplifier (for a possible second listening zone) and follow the same interconnection rules as above.
5	Mic to USB Record Switch	In the YES position the Mic signal along with the Program mix is routed to the USB record output. In the NO position only the Program mix is sent to the USB record output.
6	Inputs 1 & 2	These stereo Inputs are each switchable from a PHONO (RIAA) stage for magnetic cartridges (switch in) to a LINE level Input suitable for any line level device such as a CD player (switch out). Each of these may be assigned to PROGRAM A or B using the front panel INPUT selectors. The PHONO GROUND screw connects those extra wires coming out of the turntables.
7	Mic Input Jack	Accepts either a ¼" balanced (TRS) or unbalanced (TS) microphone plug, controlled by the front panel MIC LEVEL control.

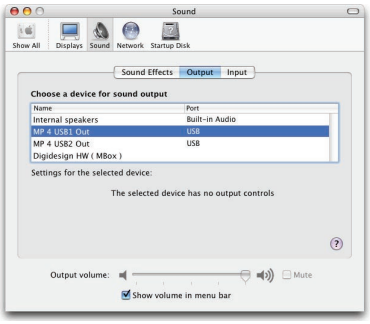
SCRATCH LIVE: GETTING STARTED

MAC OS X

Before you install the Scratch LIVE software, check for free software updates at scratchlive.net. The software version that came with your MP 4 is printed on the installation CD. The Scratch LIVE software is updated frequently, all updates are free, and available at scratchlive.net.

To install the software, double-click on the installer icon from the CD-ROM, or the installer you just downloaded from scratchlive.net.

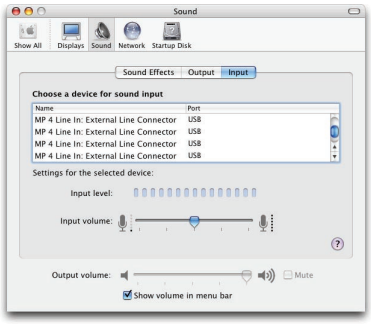
When you connect your MP 4 to your Mac, it will appear to the Mac operating system as multiple sound outputs and inputs. Go to the audio section of the system preferences panel to select the desired settings.



On the output tab, choose MP 4 USB 1 Out or MP 4 USB 2 Out, and on the MP 4 select the same USB 1 or 2 INPUT.

On the input tab, you will see four MP 4 devices listed.

They are, in order:



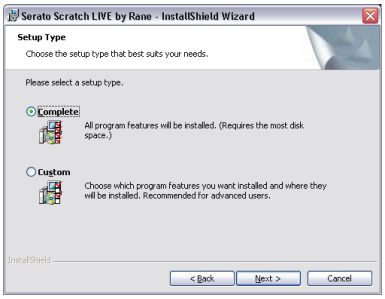
1. The Main-mix output
2. Program A
3. Program B
4. Microphone

The MP 4 can be used with third party software, as well as the Scratch LIVE software included with it. On the Mac, you can use the MP 4 with any audio application, though technical support is limited to Scratch LIVE.

WINDOWS XP

1. Disconnect any unneccessary USB devices from your PC.
2. Connect the MP 4 to your computer with the supplied USB cable.
3. The Found New Hardware bubbles appear:
MP 4
USB Composite Device
MP 4 USB1 Out
USB Audio Device
MP 4 USB2 Out
USB Audio Device
MP 4 Line In
USB Audio Device
MP 4
USB Human Interface Device
Your new hardware is installed and ready to use.
4. Before you install the Scratch LIVE software, check for free software updates at scratchlive.net. The software version that came with your MP 4 is printed on the installation CD. The Scratch LIVE software is updated frequently, and all updates are free. To install the software, double-click on the installer icon from the CD-ROM, or the installer you just downloaded from scratchlive.net. Follow the on-screen instructions.

5. Click “Next” to continue the install, or choose custom if you wish to change the install directory or choose not to install the ASIO driver.


Serato Scratch LIVE by Rane - InstallShield Wizard
Setup Type
Choose the setup type that best suits your needs.
Please select a setup type.
Complete
All program features will be installed. (Requires the most disk space.)
Custom
Choose which program features you want installed and where they will be installed. Recommended for advanced users.
InstallShield
< Back
Next >
Cancel

6. Windows may complain that the software driver is not digitally signed. Defy Microsoft and choose Continue Anyway.

Hardware Installation
The software you are installing for this hardware:
MP4 USB Device
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

7. Click Finish once installation is complete. Scratch Live appears in the Start Menu under All Programs > Serato > Scratch Live.

Windows XP treats each USB port individually. You might like to install Scratch LIVE on all of your USB ports, so you can connect the hardware to any port.

As soon as you install the device driver, the operating system does not see the MP 4. That means you can either [A] not install anything, and windows will see the MP 4, or [B] install Scratch LIVE and the ASIO driver, and then you can use the MP 4 with Scratch LIVE or an ASIO application only.

WINDOWS VISTA

When you plug in your hardware:

1. A Found New Hardware wizard will pop up.
2. Choose “Locate and install driver software”.
3. After Windows looks for the driver it will say “Windows couldn’t find driver software for your device”. Choose “Browse my computer for driver software”.
4. Browse to the location that you extracted the ScratchLIVE .zip file to. Choose the Drivers folder.
5. Click next and Windows will say “Windows can’t verify the publisher of this driver software”. Click “Install this driver software anyway”.
6. When you see the bubble “Your new hardware is installed and ready to use,” proceed to install the Scratch LIVE driver.

WINDOWS TROUBLESHOOTING

If you have a USB PCI card, your computer may have allocated bandwith to other devices, including your mouse, preventing Scratch LIVE from recognising the MP 4. Unplug unneccesary devices and install Scratch LIVE again. You may need to temporarily move your mouse to the built-in USB port. After installation, reconnect USB units as needed.

If other USB devices steal bandwidth, you may get a “interface disconnected” message when launching Scratch LIVE, try unplugging and re-plugging in the MP 4.

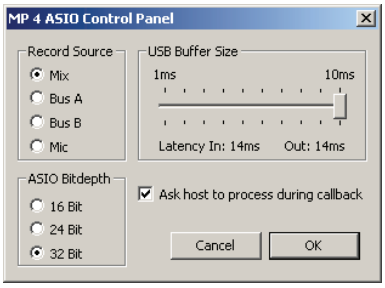
The ASIO Bit Depth and “Ask host to process during callback” settings should not be adjusted unless you are having problems.

Uncheck “Ask host to process during callback” if you have audio dropouts. Your application may not support an ASIO bitdepth of 32-bit. If this is the case, there will be no audio sent to the MP 4.

THIRD-PARTY SOFTWARE

The MP 4 can be used with third party software, as well as the Scratch LIVE software that comes with it. When you install Scratch LIVE, an ASIO driver will also be installed. You can use the MP 4 as a sound card for any third party software that supports the ASIO standard. Go to the audio interface control panel in the third party software, and choose the MP 4 Driver. Launch Control Panel to access more settings for the MP 4 ASIO driver.

You can reduce the USB Buffer Size for lower latency.



USING THE TOOL TIPS

Click on the ? icon to enable tool tips. Tool tips provide a handy way to learn the various features of Scratch LIVE. Move the mouse over a section of the screen to bring up a context-sensitive tool tip. Holding the mouse over the ? button with tool tips turned on will show you a list of all keyboard shortcuts. Tool tips are available in several languages. Scratch LIVE will display the tool tips in the language that your computer is set to. If your language is not available, the tool tips will be displayed in English.

IMPORTING AND PLAYING MUSIC

IMPORTING YOUR MUSIC

The easiest way to load music into your library is by using the import button:

1. Click on the import button to open the import panel. The left side of this window displays various locations on your computer hard drive (and external drives if you have one). Click on these locations to navigate your computer and find your music.

By default, your music will usually be found in either “Music” (Mac) or “My Music” (Windows).

2. Once you have located your music, drag the folder or files you want to import onto the purple “All...” icon. This is located to the left of your screen at the top of the crates and playlist window.

If you wish to import all of your music, just drag your whole music folder onto this icon.

TIP: You can also import by dragging files and folders directly from Windows Explorer (PC version) or Finder (Mac version) into the Scratch LIVE library.

SUPPORTED FILE TYPES

Scratch LIVE supports fixed and variable bit rate .MP3, Ogg Vorbis, AAC, .AIFF, and .WAV file types. M3U playlists are also supported.

NOTE: iTunes Music Store DRM files cannot be played back by Scratch LIVE.

PLAYING MUSIC

Click on the **All...** icon to show all the tracks in your library. Use the keyboard shortcut Shift - Left Arrow to load the highlighted track on to the left deck, and Shift - Right Arrow to load the highlighted track on to the right deck.

TIP: You can also load tracks to decks using the mouse. Click and drag a track from the track list area on to either deck.

TRACK DISPLAY

When a track is loaded, the track name, artist and length are displayed in the track title bar, and the Virtual Deck shows a solid black line.

If the track has BPM information written in the tag this will also be displayed.

SEE: SET AUTO-BPM (PAGE 12)

PREPARING YOUR FILES

BUILDING OVERVIEWS

Before you play your music in Scratch LIVE, It is important to first prepare your files by building overviews.

The overview builder analyses the songs in your library to detect file corruption, saves the waveform overview to an ID3 tag*, and calculates auto-gain and bpm values.

HOW TO BUILD OVERVIEWS

To build overviews start Scratch LIVE with the hardware disconnected. On the left side of the main screen, you will notice a button labeled “build overviews”. Click this to automatically build the overviews for all the tracks in your library.

TIP: You can drag and drop individual folders, crates or files onto this button to force the building of overviews at any time.

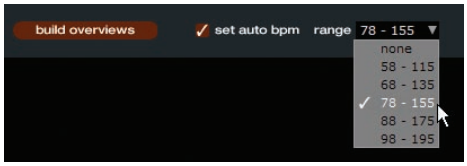
ABOUT CORRUPT FILES

If Scratch LIVE detects a corrupt file it will tag it with a corrupt file icon:

It is very important that you delete ANY corrupt files from your library as they can cause Scratch LIVE to crash regardless if you play the file or not.

SEE: STATUS ICONS (PAGE 20) AND CORRUPT FILE DESCRIPTIONS AND DIAGNOSES (PAGE 30)

SET AUTO-BPM



If this option is checked while building overviews, Scratch LIVE will calculate the estimated tempos of your files. If Scratch LIVE is confident that the auto-BPM estimate for a file is accurate, it will be written to an ID3 tag* in the file.

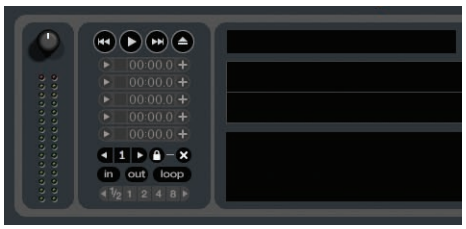
The auto-BPM function will not be applied if the track already contains BPM information. To rebuild overviews and use auto-BPM or auto gain on those files, drag them onto the build overviews button. If you know your files BPM will fall within a certain range, use the range drop down to avoid double or half value BPMs being calculated.

***ID3 tags contain data about your tracks and are saved inside the files themselves. Genre, track name and artist are examples of common tag information.**

SEE: EDITING ID3 TAGS (PAGE 20)

THE OFFLINE PLAYER

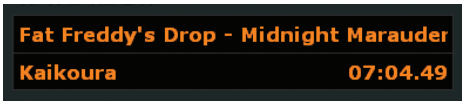
The offline player is available when Scratch LIVE hardware is not connected, and outputs through the current default audio device. Load a track to the offline player by dragging and dropping onto the deck, or pressing shift+left arrow. If the end of the loaded track is reached, the next track in the current playlist is played automatically.



The offline player is a useful tool for preparing crates, auditioning tracks, and setting cue and loop points.

MAIN SCREEN OVERVIEW

When a track is loaded, the track name, artist and length are displayed in the track title bar, and the Virtual Deck shows a solid black line.



VIRTUAL DECK

Virtual Deck shows everything about the speed and position of a track. As the vinyl rotates, so does the line on the label. The circular progress bar around the edge is a visual representation of the position within the song, and can be set to flash to warn you that the track is nearing its end. The time and remaining time are displayed in minutes and seconds. The turntable speed as a percentage pitch shift is shown on the left of the Virtual Deck, and the pitched BPM (BPM with pitch adjustment multiplier added) is shown on the right of the virtual Deck. If the track has no BPM information, pitched BPM will not be shown.

If you are playing regular vinyl, notice that the Virtual Deck behaves strangely as Scratch LIVE attempts to decode the incoming signal. This will not cause any problems, but you may find it distracting. You can unload the currently loaded track using the eject button next to each Virtual Deck.

TIP: Use the keyboard shortcut shift-alt-arrow to unload a track from the Virtual Deck.

VISUAL AIDS

When the track is playing several waveforms are displayed. Each shows a different aspect of the track being played.

TEMPO MATCHING DISPLAY

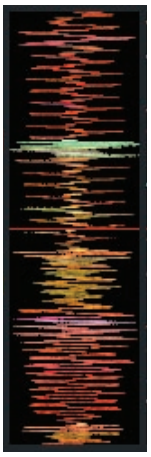
The Tempo Matching display area provides a helpful tool for beat matching. Scratch LIVE detects the beats within the track, and places a row of orange peaks (for the track on the left side) above a row of blue peaks (for the track on the right side) in the Tempo Matching display area. When the two tracks are matched to the same tempo, the peaks will line up. Note that the tempo display is aligned with the beginning of the bar, so the peaks keep their relative position as the track plays. This display does not show the relative timing of the beats, only the tempos of the tracks. The peaks will still line up when the tracks are playing at the same tempo, but are out of sync.

TRACK OVERVIEW DISPLAY

This view provides a complete overview of the waveform of the track, and includes a marker to show the current position within the track. This view is useful for finding transitions within the track. The waveform is colored according to the spectrum of the sound – red representing low frequency bass sounds, green representing mid frequency sounds and blue representing high frequency treble sounds.

You can jump to different positions within the track by clicking on the Track Overview display (disabled in **abs** mode). Grey lines behind the overview show the length of the track – a thin grey line every minute, and a thick grey line every 5 minutes. The overview will be filled when you load the track onto a Virtual Deck. On slower computers, you should disable auto fill overviews in the setup screen – with this setting disabled, the overview will be filled as you play the track.

MAIN WAVEFORM DISPLAY



This view provides a close-up view of the track, including color coding to show the frequency of the sound; red representing low frequency bass sounds, green representing mid-frequency sounds and blue representing high-frequency treble sounds. You can also switch to a three-band spectrum view by holding the ctrl key and clicking on the waveform. Click on the waveform to 'scrub' or make fine adjustments to your position within the track. This applies to **int** mode only, and may be useful if you wish to set cue points in your tracks without your turntables or CD players connected. The Main Waveform is zoomed around the current position in the track.

TIP: Use the + and – keys to zoom in and out.

In the example below, the red part of the wave represents a kick drum, while the purple part represents a snare drum.

Kick Drum

Snare Drum

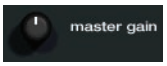
BEAT MATCHING DISPLAY

This view shows the position of beats within the track. When beat matching, this view helps align the downbeats of the two tracks. The markers are matched up when the two tracks are beat matched.

Example: The following is a demonstration of using the visual aids to help beat match. In this example, the track that is playing is on the left deck, and the track to be mixed in is on the right deck.

1. Start the track playing on the right deck. After a few seconds, blue peaks appear in the Tempo Matching display.
2. Adjust the pitch of the right turntable until the blue peaks sit under the orange peaks in the Tempo Matching display. Once they are aligned, the two tracks have the same tempo.
3. Next align the markers in the Beat Matching display. Watch the color of the items passing by in the Main Waveform display. Remember that a kick or bass drum will be red in color, and a snare drum will be green or blue. This technique will by no means guarantee perfect mixes, but may help to speed up the process of beat matching.

MASTER GAIN



The master output of Scratch LIVE can be controlled using the master gain control. This adjusts the output volume of all tracks played.

NOTE: for best results, set the master gain to the 12 o'clock position, and adjust the volume of individual tracks using the track gain adjustment.

TAP TEMPO

For tracks with no BPM information, there is a tap tempo button displayed where the BPM usually is, in the song info area. Pressing alt-space bar activates the tempo tapper (press alt-space bar a second time to activate the tempo tapper on the right Virtual Deck). Tap the space bar along with the beat. After you've tapped the first beat, you can switch to double time tapping, half time, start of each bar etc. The range is set by the first two taps, after that you can switch to any steady rhythm you feel comfortable with – quarter notes, half note, whole notes. Esc resets the BPM, Enter saves the BPM to the track. You can use the mouse if you prefer. Your CD player or turntable's pitch slider doesn't need to be at zero, we do the math for you. You can also use the tempo tapper when no song is loaded, for finding the BPM of regular records, for example.

KEY LOCK

When Key Lock is on, the key or pitch of the song stays locked at what it would be if the track was playing at normal speed, regardless of the platter speed of the turntable or CD player. Key Lock has scratch detection, so that it automatically turns off when scratching for a natural scratching sound. Turn Key Lock on or off by pressing the button to the top right of the Virtual Deck.

TIP: F5 and F10 will turn Key Lock on and off for the left and right decks respectively.

REPEAT

Use the repeat function to repeat the song across the entire length of the control record.

TIP: Short "loop" samples can be turned into a continuous track using the repeat function. The loops must be less than 10 seconds long, and cut at the start and end of a bar.

CENSOR

Use the censor button to 'mask' parts of a song, or use as a special effect. When you press the censor button, the track starts playing backwards from that point. When you release the censor button, the track plays forward from the point you would have been, had you not pressed the censor button.

EJECT

This ejects the track playing or loaded track from the Virtual Deck.

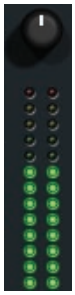
FADER START

Playback may be triggered from the Crossfader using the fader start feature. To start playback using the Crossfader, pause the track at the desired position and press the fader start button. Now each time you move the Crossfader from its end position, the track will start playing from that point. Moving the Crossfader from the right end point will start the left deck when fader start is turned on, and moving the crossfader from the left end point will start the right deck when fader start is on. You can set the fader start point using the keyboard shortcut ctrl-i for the left deck, and ctrl-k for the right deck. You can also jump to this point without moving the fader by pressing I for the left deck, and k for the right deck. The fader start point is not saved with the file, and by default this point is set to the start of the track.

AUTOPLAY

Click the auto button to enable autoplay. With this setting turned on, when one track finishes playing, the next track starts automatically. Load from a crate to play through the songs in that crate, or from your library to play through your library. Use the next EEI and previous IFF buttons to jump to the next track or go to the previous track in the list. Play from start must be checked in the setup screen for autoplay to work correctly.

TRACK GAIN



Use the track gain adjustment to balance the volume of the tracks in your library. Any adjustment made to the gain of a track is saved with the file, and will be reapplied to the entire track when it is loaded again. The level meter shows the level sent to the hardware interface after both individual track gain and master gain adjustment.

NOTE: for automatic gain setting of your tracks, SEE ADDITIONAL SETUP.

MIXING WITH THE MP 4

Scratch LIVE software has many features allowing you to smoothly mix two tracks together. From left to right, these are:

Rewind - The rewind function speeds up the longer you press the button.

Bend down - Create a temporary decrease in the playback speed. Use bend down if the two tracks are in time, but this track is slightly ahead of the other track.

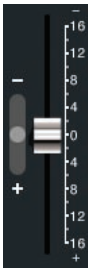
Play / pause reverse - Press to play, press again to stop playback. You can adjust the braking knob in the setup screen to range from an immediate stop to a slow turntable-style 'power down'.

Play / pause forward – Press to play, press again to stop playback. Uses the same braking as described above.

Bend up – Create a temporary increase in the playback speed. Use bend up if the two tracks are in time, but this track is slightly behind the other track.

Fast forward – The fast forward function speeds up the longer you hold the button.

PITCH SLIDERS



Scratch LIVE has two pitch sliders – a large slider for coarse pitch adjustment, and a small pitch slider for fine adjustments. Click above or below the handle on the large pitch slider to make small pitch adjustments, or hold the shift key and drag the pitch slider to move it slowly. Drag the center of the small pitch slider to make fine pitch adjustments, or click on either side of the small slider to pitch bend.

TEMPORARY CUE

There is a temporary cue point that can be used like the Cue button on many DJ CD players. Press ctrl-I to set this temporary cue point on the left deck, and ctrl-K to set it on the right deck. This temp cue point is shown in the main waveform as a white marker. This cue point is not saved with the track, and by default is set to the beginning of the track. Press I to jump to this temporary cue point on the left deck, and K for the right deck. If you hold down the I or K key while the track is stopped, it will play from the temp cue point. As soon as you release the key, it will jump back to the temp cue point. Note that you can use this shortcut to jump to the beginning of the track if the temporary cue point has not been set. **SEE CUE POINTS.**

The buttons above the small pitch slider allow you to seed the base playback speed – 1/2 (half speed), 33/45 or the speed of a 45 rpm recording playing at 33 rpm, 1x or normal speed, 45/33 or the speed of a 33 rpm recording playing at 45 rpm, or 2x (double speed).

You can also control playback using the computer keyboard shortcuts — turn Caps Lock on to enable.

Left Deck	Function	Right Deck
Q	play / pause reverse	A
W	play / pause forward	S
E	pitch down	D
R	pitch up	F
T	bend down	G
Y	bend up	H
Alt-Q	load previous track	Alt-A
Alt-W	load next track	Alt-S
Alt-E	rewind	Alt-D
Alt-R	fast forward	Alt-F
Ctrl-I	set temporary cue point	Ctrl-K

Click on the waveform to 'scrub' or make fine adjustments to your position within the track. This may be useful if you wish to set cue points in your tracks, and don't have your turntables or CD players connected.

CUE POINTS

You can set up to five visual cue points within each track. Use the + button to place cue point.

Click the arrow to the left of each cue point to jump to it. You can also jump to cue points using keyboard shortcuts – 1 through 5 for the cue points on the left deck, and 6 through 0 for the right deck cue points. Notice that the stripe on the Virtual Deck jumps to the 12 o'clock position and changes color when you set a cue point – you are at the cue point when the stripe is one solid color and at the 12 o'clock position.

As the record plays on beyond the position of the cue point, the colored bar will shorten by a fifth for each rotation. Likewise, as you approach the cue point, the color will grow by a fifth each rotation. For example, the picture in the next column shows the record just before the end of the 5th rotation before the cue point.

Each cue point can have a different color. To change the color of a cue point, click on the colored square and choose a new color from the drop down menu.

To remove a cue point, use the x button on the right side of the cue point panel.

A cue point can occupy any of the 5 slots. You can drag and drop cue points to change their order in the list. If you wish to have the cue points sorted chronologically, check the sort cues chronologically option in the setup screen. If you load the same track on to both decks, you will be able to add or modify cue points from either deck.

When you jump to a cue point in internal mode while paused, the track will play from the cue point for as long as the key or mouse button is pressed, after which the playhead returns to the cue point.

TIP: The rate of cue point stuttering is controlled by your operating system keyboard repeat rate settings. Windows users: Keyboard properties are in the Control Panel. Mac users: Keyboard and Mouse are in System Preferences.

TIP: Use the keyboard shortcuts ctrl-comma (for left) and ctrl-dot (for right) to place cue points.

LOOPING

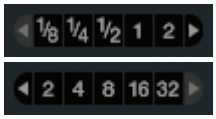
You can save up to 9 loops per track; these loops are saved in the file, and will be present when you reload the track. To make a loop, set the in-point by clicking the in button, and the out-point by clicking the out button. To turn the loop on or off, click the loop button. If you want the playhead to jump to the start of the loop when you enable the loop, hold the control key and press the loop button.

To adjust the in-point of the loop, click the in button. You can use the arrow keys: left arrow to move the in-point towards the start of the track, right arrow to move the in-point towards the end of the track. Hold down the shift key while pressing the arrow key to make coarse adjustments. Click the in button again to save the in-point. The same applies to adjusting the out-point.

You can also use the control vinyl (or CD) to adjust the in- and out-point. Click the in button, then move the control vinyl. Moving the vinyl will adjust the in-point. Once you are happy with the new in-point, click the in button to save, and release the control vinyl.

The control vinyl will go back to controlling playback once the record is back up to normal speed. Using the control vinyl to adjust loop end points is optional — to turn this feature off, disable the adjust loops with vinyl option in the setup screen. There are 9 available loop slots per track. If a loop is set in a given slot, the background (behind the loop number) will be green. Press the x button to clear the loop. If you click on the locked loop symbol, a red border will appear. This indicates the loop is locked, and you will not be able to adjust the end points or delete the loop until you unlock it, by clicking on the number again.

AUTO LOOPING



Auto looping allows you to create loops instantly. If the track has a BPM value simply click the number of bars you wish to loop and Scratch LIVE will create the loop for you. The loop is snapped to the beats in the song detected by Scratch LIVE so even if when you press the button slightly out of time Scratch LIVE will still create a perfect loop for you.

Five auto-loop buttons are available on screen at any one time. They range from 1/8 to 32 bars. The user can select the autoloop range with the < and > buttons.

Pressing an auto-loop button will create a loop start point from the nearest beat to the playhead (within reason), and set a loop endpoint in the future. Pressing auto-loop 1 while auto-loop 1 is active will deactivate the loop. Pressing a different auto-loop button while looping is active will extend the endpoint of the current loop to the appropriate new auto-loop length.

You can also save an auto-loop to the next available slot. When using an auto-loop, a save button is visible where the lock loop button normally is.

NOTE: Auto-looping requires the track bpm to be set.

THE A - SLOT

A special loop slot ‘A’ exits for auto-looping. The act of using the auto-loop buttons sets a loop in the ‘A’ slot, following the rules above. Turning a loop off using the auto-loop buttons returns you to the loop slot that you were previously in at the time you started auto- looping. Turning the loop off using the ‘loop’ button leaves you in the ‘A’ slot. The ‘A’ slot is not saved to disk automatically, pressing ‘save’ saves the loop to the first empty slot in 1-9.

Auto-looping shortcut keys are alt-1 to 5 for the left deck, and alt-6 to 0 for the right deck. They correspond to the looping buttons as laid out on screen. ie. if the onscreen buttons display 1 2 4 8 16 bar loops, alt-1 triggers 1 bar loop, and alt-5 triggers a 16 bar loop.

MIDI CONTROL

OVERVIEW

The MIDI Control feature in Scratch LIVE provides the ability to map MIDI controls to Scratch LIVE controls, and thus control the functions of Scratch LIVE using MIDI controllers such as keyboards, triggers, sliders, and knobs. Integrating MIDI controllers into your Scratch LIVE setup can improve live performance usability, such as hitting pads on a MIDI controller to trigger loops and cue points.

MIDI CONTROLLER SETUP

The process of setting up a MIDI controller for use with Scratch LIVE will vary depending on the hardware in question. Many devices can connect to a computer using MIDI over USB, and will either be supported directly by your operating system, or require installation of drivers and configuration utility software. Follow the manufacturers instructions for installation.

Other controllers may solely use a MIDI out connector to send control messages, and will require a separate MIDI interface unit to communicate to software. Generally the MIDI interface will come with drivers and configuration tools which pass your controllers output onto an available MIDI channel, which can be used by Scratch LIVE.

Once your controller is installed and functioning correctly, use the directions for assigning controls below.

ASSIGNING CONTROLS

To enable MIDI assign mode, click the MIDI button or press ctrl+M. Hovering the mouse pointer over a control will bring up the MIDI assignment box, showing the current assignment status.

To assign a MIDI control, click on the control in Scratch LIVE, then move the MIDI control. The MIDI assignment box should update to show it has mapped the controls to one- another.

To un-assign a MIDI control, click on the control in Scratch LIVE, and press return on your computer keyboard.

NOTE: Once in MIDI assign mode, Scratch LIVE controls will no longer respond directly to the mouse. If you need to change a control using the mouse, disable MIDI assign mode.

While in MIDI assign mode, controls which have MIDI inputs assigned show a green box indicator around them.

A NOTE ABOUT MIDI PLATTERS

The Scratch LIVE virtual decks are not user assignable to MIDI control. MIDI devices with platters on them all send different data so user mapping is not possible. To control the platter use a natively supported controller.

ASSIGNING MIDI TO OTHER CONTROLS

Controls which aren't normally visible are available for assignment in the lower part of the screen when in MIDI assign mode. These include library navigation controls and the temporary cue points for either deck.

ASSIGNING CTRL-CLICK FUNCTIONALITY

Some Scratch LIVE controls on the GUI have additional functionality assigned to ctrl-click. You can assign ctrl-click functionality to a midi control, alongside the normal functionality. For example, ctrl-click on the internal mode pitch slider returns pitch to zero. To assign this to midi control, enter midi assign mode, ctrl-click on the slider, and then assign one of the pads to it. When you press the pad, pitch goes to 0.

PRESETS

MIDI presets are accessible in the MIDI panel of the setup screen. By default, the current MIDI assignments in Scratch LIVE are automatically remembered and loaded next time you start the program. The preset screen allows you to save and recall several different MIDI setups. This is useful if you are using several MIDI devices or want to quickly switch. MIDI setups without having to re assign all your controls.

NATIVE CONTROLLER SUPPORT

Scratch LIVE version 1.8.2 currently has native support for the following 3rd party controllers:

Denon DN-HC4500
Denon DN-HD2500
Numark DMC2
Numark iCDX
Pioneer CDJ-400

These controllers are plug and play, and can automatically control Scratch LIVE with no MIDI assigment necessary.

TECHNICAL INFORMATION

Scratch LIVE MIDI Control only supports Note On/Off, standard 7 bit CC (Control Change), 14 bit CC, and RPN/NRPN (14 bit).

ORGANIZING YOUR MUSIC

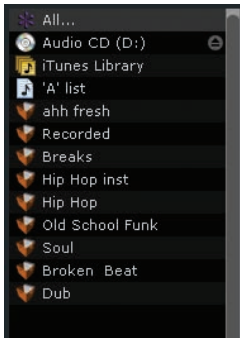
Scratch LIVE can support an unlimited number of tracks – the only limitation is the size of the hard drive of your computer. A number of features are included to help you to keep your music organized and find songs quickly and easily.

GROUPING TRACKS INTO CRATES

Scratch LIVE supports several ways of organizing and sorting your file library. iTunes™ users will notice that Scratch LIVE automatically incorporates your existing iTunes library and playlists.

Scratch LIVE uses digital "crates" for quick access to your favorite collections. There is no limit to the number of crates you can create, and any given track can be placed in multiple crates. For example, you could organize your files into the following crates, where any one track would be filed in more than one crate:

- Hip Hop
- UK Hip Hop
- French Hip Hop
- Inst Hip Hop
- Old Hip Hop
- Hip Hop LPs



To make a new crate, click the + button. To rename a crate, double click the crate name

You can change the order of tracks within a crate by dragging them up or down.

TIP: The protect library option in the setup screen applies to removing, editing and renaming crates. Check this option to prevent changes to your crates. If you do delete a crate by accident, you can get it back from the recycle bin / trash. Crate files have the extension .crate.

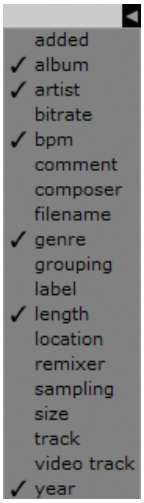
SUBCRATES

You can drag and drop crates into other crates to make subcrates. If you drag a crate to the very left of the crate panel, it will stay in the top level of the crate structure. If you drag the crate a little to the right, onto the name of another crate, it will make the crate you are dragging a sub crate of the first crate.

SORTING YOUR FILES

The track information display area can be customized to display the columns listed below:

- Added
- Album
- Artist
- Bitrate
- BPM
- Comment
- Composer
- Filename
- Genre
- Grouping
- Label
- Length
- Location
- Remixer
- Sampling
- Size
- Track
- Video Track
- Year

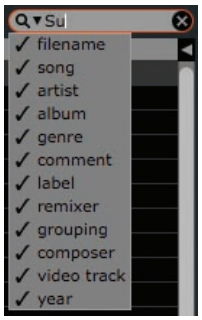


The column button is ◀ located at the top of the library pane in right hand corner. Click on the column button to select which columns you want to display. For example, clicking on the album column header will sort your library alphabetically by album title. To move a column, drag the header to the left or right. To resize a column, click on the column boundary and drag it to the left or right.

USING THE SONG BROWSER

The song browser allows you to filter your song list by Genre, BPM, Artist and Album. To turn the song browser on or off, click the browse button.

SEARCHING



Scratch LIVE includes a search function to help you find files quickly and easily. Enter text into the search box and Scratch LIVE will automatically find as you type. To select which fields the search function will look through, click on the left hand side of the search box. The drop down menu shows which fields are currently being used. Press esc or the x button on the right of the search box to clear the search.

TIP: Use the keyboard shortcut 'ctrl-f' to jump to the search box. This keyboard shortcut will also take you out of any crate or playlist that you might be in and into your main library, so you can find any track in your collection. If you then click on a crate or playlist, the search query will be cleared.

PREPARE WINDOW

The prepare window is a holding area for tracks, much like preparing a set by lifting records part way out of your record bag. You can drag tracks (or whole crates) from the main track list into the prepare window, or simply drag them onto the prepare button. These tracks will be removed from the prepare window once they have been played. All tracks in the prepare window will be discarded when you exit Scratch LIVE.

TIP: Use the keyboard shortcut ctrl-p to add tracks to the prepare window.

TIP: Select the contents of the prepare window, drag them onto the new crate button (+) to save the selection.

REVIEW WINDOW

The review window shows the tracks you have recently played in the order in which they were played. Tracks you have played recently are colored green – press the clear button to reset the list of recently played tracks.

TIP: Select the contents of the review window and drag them onto the new crate button (+) to save a history of the tracks you played.

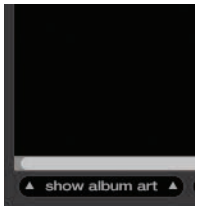
EDITING ID3 TAGS

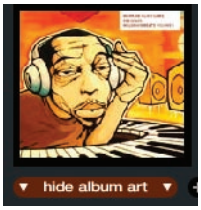
Much of the information associated with each file can be edited from within Scratch LIVE. Double click on the attribute within the main library to edit the attribute. Filename, length, size, bit rate and sampling cannot be edited. This information is saved in the file itself. Note that the protect library option in setup must be unchecked to allow edits. **See Preparing your files on page Manual-15 for details on prebuilding overviews and auto-BPM.**

TIP: Use the keyboard shortcut "ctrl-e" to edit text. Hold down the ctrl key and move with the arrow keys to change to a different field while staying in edit mode. When you have more than one file selected, editing tags changes all the files in your selection.

TIP: The second column in the library is the label color for that file. Click it to bring up a color palette, and customize the virtual deck for that file.

DISPLAY ALBUM ART





MP3 files can contain album art information. To display this album art, click the show album art button. There are many third party applications available for adding album art to MP3s. We recommend Apple's iTunes™.

STATUS ICONS

The leftmost column shows the status of each track. The image to the left shows five tracks with differing statuses.

• Scratch LIVE has detected some corruption in the MP3 file. If possible, re-encode the MP3.

• The track has been imported from the iTunes™ library.

• The track has been imported from the iTunes library, and Scratch LIVE has detected some corruption in the MP3 file. Solution: If possible, re-encode the MP3.

• The track cannot be found. Most likely the file has been renamed or moved.

• Scratch LIVE is trying to import a track from the iTunes library, but cannot find the file.

• Tracks that are read-only have a locked icon.

MORE INFO ON CORRUPT FILES

If you have a corrupt file in your library, hover your mouse over the status icon for information on what type of corruption was found. Detailed explanations of these messages can be found on page 34.

AUTO-BACKUP

Scratch LIVE stores your library database and crates information in a Scratch LIVE folder on your hard disk. This folder is created on a drive when files from that drive are added to Scratch LIVE. There is one on your system drive and there will be one on every external drive that you use with Scratch LIVE.

Auto backup creates a copy of the Scratch LIVE folder on your system drive once a week on startup. If an external drive containing a Scratch LIVE folder is detected it will be backed up if the last backup on that drive is older than a week or if no backup exists.

A copy of each Scratch LIVE folder called ScratchLIVE backup is created next to the folder it is backing up. Auto-Backup will only keep ONE level backup at a time, each time autobackup runs it overwrites the previous backup.

DELETING CRATES AND TRACKS FROM SCRATCH LIVE

To delete tracks from your Scratch LIVE library, select the track and use the keyboard shortcut ctrl-delete. (Make sure you have the protect library option unchecked in the setup menu.)

•Deleting a track when you are in the All...playlist removes it from your library and any crates that the track may be in.

• Deleting a track inside a crate removes it from that crate but the file will remain in your All.... playlist.

• Deleting a track from a subcrate will remove it from the subcrate and the main crate but not the All...playlist.

• Crates that are deleted are sent to the recycle bin/trash.

NOTE: To delete any files from your library and your harddrive (sending them to the recycle bin) use the shortcut ctrl-shift-delete.

If you are using iTunes playlists, your files cannot be deleted this way. You will need to delete them from within iTunes.

RECORDING

Scratch LIVE allows you to record one of six stereo signals from the MP 4:

- Mic
- Program A
- Program B
- Main Mix

1. Click on the downward arrow (icon) to get the drop menu displaying the six possible record sources.
2. Select the desired source and press the record icon to start
recording.
3. The record icon flashes while recording and the display shows the elapsed recording time.
4. Press the record icon again to stop the recording.
5. To save the recording, type in a name for the recording and click the save icon.
6. The recording is automatically placed in a crate named “RECORDED”. If the crate does not already exist, it will be created automatically.
7. To start a new recording without saving, simply click the record button again.

Recordings can be loaded onto the decks, renamed, and managed like other files. Recordings are saved in “MyDocuments\My-Music\ScratchLIVE\Recording” on a PC and “~/Music/ScratchLIVE/Recording Temp” on a Mac. Recordings are saved as 16-bit, 44.1 kHz stereo AIFF files.

TIPS.

• The keyboard shortcut ctrl-n turns recording on and off

• You can load a recording without saving it using the short cut keys shift left arrow to deck 1 or shift right arrow to deck 2.

• If the Virtual Deck is set to int mode and is unloaded, the input record level is sent to the Virtual Deck’s higher resolution stereo meters. E.g., if you’re recording from input 2, set the right Virtual Deck to int, eject the track if there is one loaded, and the Virtual Deck’s meters will show the signal coming into input 2.

NOTE: Any recordings over 3 hours are automatically split into individual files.

KEYBOARD SHORTCUTS

These actions can be accessed directly from the computer keyboard.

NOTE: Playback, cue and speed controls use Shift or Caps Lock. You can turn this off in the setup screen.

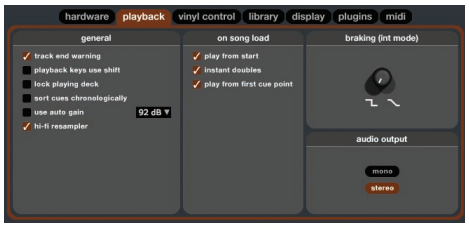
KEY	ACTION
ctrl - L	Locate the current track. This will highlight the track you most recently loaded. Pressing ctrl - L again will alternate between the tracks recently loaded on both decks.
ctrl - R	Reveal - the highlighted song is opened in a file browser.
ctrl - F	Find - moves the cursor to the search box.
ctrl - A	Select all.
ctrl - C	Copy text in edit mode.
ctrl - E	Edit text.
ctrl - V	Paste text in edit mode.
ctrl - X	Cut text in edit mode.
ctrl - Z	Undo last track load.
shift ctrl - ↑ shift ctrl - ↓	Move focus up / down through the library or crates. Note that if you have a song highlighted in the song view, and use shift - ctrl -↑ ↓ you will move up or down through the library or crates. When you release the shift or ctrl key, the focus will go back to the song view so that you can move up and down through songs using ↑ ↓.
ctrl - P	Add tracks to the prepare window.
ctrl - N	Start a new mic recording.
ctrl - O	Open the track in your default MP3/WAV/OGG/AIF player.
- or +	Zoom the main waveform display.
tab	Alternate focus between crates or songs.
ctrl - del and ctrl - shift backspace	Remove track from library, remove track from crate, delete crate (does not delete the file).
alt - del and alt - backspace	Remove track from crate and from library
ctrl - shift - del and ctrl - shift - backspace	Delete the file from your library and send to the recycle bin. (Note to iTunes users: files in your iTunes library cannot be deleted this way).
ctrl - shift /	Toggle the input reverse switch.
esc	Clear search string if searching, or exit Scratch LIVE.

LEFT DECK	ACTION	RIGHT DECK
ctrl - ← or shift - ←	Load the highlighted song to a deck.	ctrl - → or shift - →
ctrl - shift - →	Load the track currently on one deck onto the other deck as well	ctrl - shift - ←
ctrl - /	Swap the two currently playing tracks from one deck to the other.	ctrl - /
shift - alt - ←	Unload the track from a deck.	shift - alt - →
ctrl - , (comma)	Place a cue point.	ctrl - , (comma)
1, 2, 3, 4, 5	Jump to cue points in track. (rel and int modes)	6, 7, 8, 9, 0
F1	Switch deck to abs mode.	F6
F2	Switch deck to rel mode.	F7
F3	Switch deck to int mode.	F8
F5	Key lock on / off.	F10
Q	Play / pause reverse.	A
W	Play / pause forward.	S
E	Pitch down.	D
R	Pitch up.	F
T	Bend down. (rel and int modes)	G
Y	Bend up. (rel and int modes)	H
U	Censor. (rel and int modes)	J
I	Go to temporary cue point. (rel and int modes)	K
O	Set / adjust loop in-point.	L
P	Set / adjust loop out-point.	;
[	Loop on / off.	‘
ctrl - [	Jump to selected loop.	ctrl - ‘
alt - Q	Load previous track.	alt - A
alt - W	Load next track.	alt - S
alt - 1, 2, 3, 4, 5	Auto-loop on/off	alt - 6, 7, 8, 9, 0
alt - E	Rewind. (rel and int modes)	alt - D
alt - R	Fast forward. (rel and int modes)	alt - F
alt - O	Previous loop.	alt - P
alt - L	Next loop.	alt - ;
alt - spacebar	Activate the tempo tapper.	alt - spacebar (x2)
ctrl -I	Set temporary cue point. (rel and int modes)	ctrl - K

ADDITIONAL SETUP

This section covers general preferences and adjustments you can make to improve the performance of Scratch LIVE. From the main screen, tick setup to get to this area.

PLAYBACK



TRACK END WARNING

Enable track end warning to flash the virtual deck as you approach the end of the track. The label will start flashing 20 seconds from the end of the record. The track end warning does not apply to any tracks under 1 minute long.

PLAYBACK KEYS USE SHIFT

This is checked by default. Unchecking this option will enable all of these keys without pressing shift or having caps lock on. This applies to all cue points (1...0) and cue controls (QWERTY etc). **SEE KEYBOARD SHORTCUTS.**

LOCK PLAYING DECK

Every DJs nightmare used to be lifting the needle of the wrong turntable in the middle of a set. This setting helps to avoid the digital equivalent; loading a new track to the wrong deck. When this option is checked, you can only load a track if the target deck is stopped.

SORT CUES CHRONOLOGICALLY

The five cue points can be placed in any order, and can be dragged up and down if you wish to reorder them. If you prefer to lock them to chronological order, turn this option on.

AUTO GAIN

Auto gain enables you to set a uniform volume level for the tracks in your library. When a track is in auto gain mode, the track gain knob appears depressed.

To enable auto gain, go to the setup menu, select the playback tab, and then check the “use auto gain” check box. Provided you have built your overviews, your tracks will now be loaded with the auto gain applied.

MODIFYING THE AUTO GAIN LEVEL.

Next to the “use auto gain” check box, there is a drop down menu that sets the target gain volume level. Use this to adjust the level of your auto gain.

To find the optimum setting, load a track with an average volume level onto one of the virtual decks. Now play the track, and note the volume and LED lights inside the software.

The idea is to have the track volume sit just under the clipping point (indicated by the LED meter red lining). If the track is too quiet, unload the track, then go to the setup screen and boost that auto gain db value more.

Once you’ve made that adjustment, load that same track onto the virtual deck again.
Notice that the volume knob has turned up and the volume is louder.

Keep making those adjustments on that particular track until its just below the clipping point. Once that is set you don’t need to adjust the target gain level ever again.

Because the track you used had an average volume level, most of the other tracks in your library will be around the same volume. You may still need to turn up the separate track volume when you load a quieter track onto the deck and turn down the louder tracks but once you’ve made those adjustments Scratch LIVE will remember them the next time you load the file.

TIP: Slightly too quiet is always better than too loud. If your LED meter is in the red, it is likely that it is clipping. Not only does clipping not sound very nice, it can damage your equipment.

NOTE: Your overviews need to be built by version 1.7.2 or later for auto gain to work.

HI-FI RESAMPLER

This significantly reduces digital distortion at very slow or very fast record speeds, increasing the CPU load slightly. This option is off by default, the old resampler is used when switched off.

PLAY FROM START

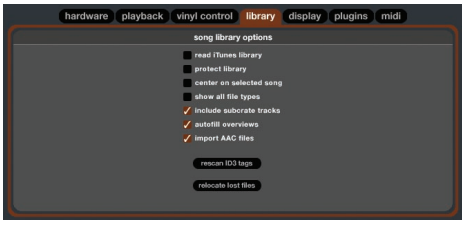
If this setting is not enabled, freshly loaded tracks will continue to play from the point the last track was at. This option is on by default.

INSTANT DOUBLES

This allows you to quickly match the playhead position of two tracks. With this option set, when you load a track on one virtual deck that is already loaded on the other virtual deck (it must be the same file), the playhead will jump to the position of the track that was loaded first, with the keylock state and looping settings copied. This setting overrides the play from start and play from first cue point options.

PLAY FROM FIRST CUE POINT

Enable this option to start all tracks from the first cue point. This setting overrides the play from start option.



READ ITUNES™ LIBRARY

Existing iTunes users will recognize many features from iTunes. Scratch LIVE can read the iTunes library format, and will automatically import the iTunes library and iTunes playlists. iTunes is available for Mac and PC, for more information about iTunes, visit www.apple.com. Click read iTunes library to activate.

NOTE: it may take some time to read your iTunes library if it contains a lot of tracks. If you edit the file information of tracks from your iTunes library, the changes will not appear in iTunes until after you play the track. Scratch LIVE cannot play files that have been protected by Digital Rights Management systems, such as those sold through the Apple iTunes Music Store.

PROTECT LIBRARY

Uncheck this setting to remove files and crates from your library. Enable to lock your library and prevent accidental file or crate deletion while using Scratch LIVE. Enabling this setting will also lock all file tags and crate names, so that no text can be changed.

CENTER ON SELECTED SONG

With this option on, scrolling up and down in your library holds the selected track in the middle of the library panel.

SHOW ALL FILE TYPES

Enable this option to show all files when importing tracks into Scratch LIVE. If this option is not selected, only files that Scratch LIVE can play will be displayed.

INCLUDE SUBCRATE TRACKS

You can drag crates into other crates to make subcrates. If you have the “include subcrate tracks” option turned on, any crate will also display the contents of all its subcrates. **SEE ORGANIZING YOUR MUSIC.**

AUTO FILL OVERVIEWS

Enable this setting to automatically generate the track overview as soon as a track is loaded. If this setting is not enabled, the track overview will be generated as the track plays. Automatically generating the track overview uses more of the computer’s CPU power, and should be disabled on slower computers.

IMPORT AAC FILES

Turn this option off if you do not wish to import AAC files into your library. Changing this option will cause your iTunes library to be reloaded if you have the ‘read iTunes library’ option turned on.

RESCAN ID3 TAGS

Click this button to force Scratch LIVE to re-read all file tags. Use this function if you have edited or modified file tags outside of Scratch LIVE.

TIP: Rescanning the tags is a handy way to identify all the files that Scratch LIVE can’t find (for example if the files have been altered or moved). These tracks will show up red in the main track list, with an exclamation mark in the status column. You can sort by the status column to group all these tracks together.

RELOCATE LOST FILES

This feature is used to find music and folders on your computer that you have either moved or alterted.

If Scratch LIVE cannot locate a file in your library, it will be be displayed in pink and display “file not found” when you try to load it to a deck. Rather than re-importing the files, use this feature to relocate them.

To use relocate lost files:

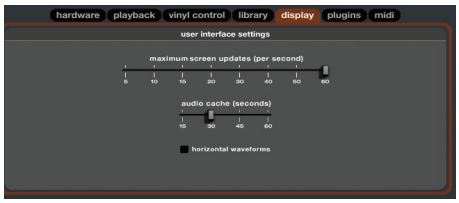
1. Go to the setup menu and select the library tab. At the bottom of this menu is the relocate lost files button.

2 Clicking this button will search all your drives (internal and external) for files currently marked as not found in your library.

3. When this process is complete, your Scratch LIVE library will be updated with the new location of your files.

TIP: You can also drag folders or files from finder (mac) or explorer (windows) onto the relocate lost files button. This is useful if you know the location of files, and can be much faster than scanning all of your drive/s.

DISPLAY



MAXIMUM SCREEN UPDATES (PER SECOND)

This feature allows you to throttle back the screen refresh rate. Users with slower computers might like to do this if they are having performance issues. It could also be useful if you want to limit Scratch LIVE’s processor usage, for example if you are running a recording program at the same time. The default setting is 60 Hz, or refreshed 60 times per second. This setting applies to the entire screen (i.e. the Virtual Decks, the Waveforms, the library, and the setup screen).

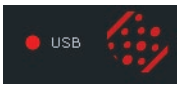
AUDIO CACHE (SECONDS)

Use the slider to set the amount of audio that is loaded into memory. A small audio cache will place less load on your computer, and the tracks will load faster. A large audio cache will give you a bigger view of the waveform when the main waveform view is zoomed out.

HORIZONTAL WAVEFORMS

Check this option to display the main waveform view horizontally. The waveform will expand to fill available screen space. If you are using a widescreen computer, increase the audio cache size to make the waveform bigger.

USB DROPOUT INDICATOR



The USB dropout indicator on the main screen is a useful trouble shooting tool if you have problems with audio dropouts. Such dropouts are caused by an interruption in passing the audio to the Scratch LIVE hardware interface. If such an interruption (or dropout) occurs, a red light will appear briefly, just to the left of the Scratch LIVE logo at the top of the screen. The light will be red for one second, and then orange for four seconds.

If you do experience USB drop outs:

• Try closing other applications that are running at the same time as Scratch LIVE.

• Try turning off background tasks, for example, wireless networking.

•Visit Scratchlive.net for more information and support

If your CPU load is very high, try decreasing the maximum screen updates (in the setup screen).

TROUBLESHOOTING AND FREQUENTLY ASKED QUESTIONS

THE AUDIO PLAYBACK IS DROPPING OUT / CLICKING / POPPING

Scratch LIVE is not getting a clear signal, or your computer is not able to process the information quickly enough.

THE FIRST TIME I PLAY A NEW TRACK, IT TAKES A WHILE TO LOAD

Scratch LIVE has to read the entire file and create a file index the first time it is loaded. This may take a few seconds for longer files. After the first load, it should load instantly. **See Build Overviews on page 12.**

I HAVE A PARTICULAR MP3 THAT WON'T PLAY / PLAYS BADLY / TAKES A LONG TIME TO LOAD / CRASHES THE PROGRAM. WHAT SHOULD I DO?

The file may be damaged. Please go to the forum at scratchlive.net and notify the support team that you have a bad file. By reporting damaged or corrupt files, you will help the developers to improve Scratch LIVE's ability to play damaged MP3 files in the future.

I WANT TO BACKUP MY LIBRARY AND CRATES OR MOVE THEM TO ANOTHER MACHINE, SO WHERE ARE THEY STORED?

Your database and crates are stored in the folder Home\Music\ScratchLIVE on a Mac, and My Documents\My Music\ScratchLIVE on a PC. Crates have the file extension .crate and are located in your subcrates folder. If your library contains tracks that are stored on a drive other than your boot drive, a folder called _ScratchLIVE_ will be created in the root of that drive, and a separate database will be made in this folder. If it is a removable drive, the tracks will only appear in your library when the drive is connected.

To keep up with the latest tips, visit the Official Scratch LIVE Forum online at scratchlive.net

CORRUPT FILE DESCRIPTIONS AND DIAGNOSES

Corrupt file: This MP3 contains invalid frames.	This MP3 contains frames which do not conform strictly to the official MP3 specification. Scratch LIVE can not be certain that this file will play back 100% accurately.
Corrupt file: This file contains corrupt frames that may result in audible glitches.	This file contains two or more contiguous corrupt frames. Since corrupt frames are replaced with silence, this could result in what might sound like an audio glitch.
Corrupt file: This file has been split. You should check the beginning for audio glitches.	The first MPEG audio frame in this file refers to audio that should be present before it but is not. This is usually the result of incorrect MP3 editing. Since a corrupt frame is replaced with silence and most songs start with silence, the resulting silence might not be noticeable. All the same, listen to the beginning of the song, just to be sure.
Corrupt file: This MP3 contains frames with corrupt data.	Decoding of an MPEG audio frame failed. This means that the frame contained invalid data. As usual with corrupt frames, this frame will be played as silence.
Corrupt file: This MP3 lost syncronization between the frame index and the frames.	Scratch LIVE is reading an old overview of an MP3 that has been edited in a 3rd party editing program. Re-building the overviews for the affected files usually corrects this error.
Corrupt file: This MP3 is completely invalid and is not playable.	Self explanatory. Possible causes are disk bad sectors, file system corruption, wrong file types, wrong file extensions, etc
Corrupt file: This file contains invalid audio data.	Scratch LIVE encountered a lot of invalid data while looking for audio in this file. This message alerts you to the fact that the file you're trying to play contains corrupt data. This may, or may not, affect playback.
Corrupt file: This MP3 contains no valid frames.	No audio could be found in this file, which means it is completely unplayable as far as Scratch LIVE is concerned. Please make sure this really is an audio file.
Unsupported file: This MP3 contains multiple layers.	While scanning this file, Scratch LIVE found frames belonging to multiple MPEG layers. Scratch LIVE does not support MP3s that contain frames from multiple layers – some frames may be output as silence.
Unsupported file : This file is more than 2GB in size.	Self explanatory. At the moment, Scratch LIVE does not support files that are 2GB in size (or larger).
Unsupported file : This file has data blocks greater than 2GB in size.	This file contains chunks of data that are larger than 2GB. Scratch LIVE does not support files that are more than 2GB in size.
Corrupt file: This WAV contains no valid chunks.	This WAV file contains no recognizable WAV data. It is quite possible that this might not be a WAV file.
Unsupported file: This file's data is not in PCM format.	WAV files can contain data in several formats. Scratch LIVE only supports WAV files that contain data in the PCM format.
Unsupported file: This file has a sampling rate greater than 48kHz.	Scratch LIVE does not support sampling rates greater than 48 kHz. If you see this message, the simplest approach is to re-sample the audio at 48 kHz and re-save the file.
Unsupported file: This file uses more than 24 bits per sample	Scratch LIVE supports a maximum of 24 bits per sample of audio data.
Corrupt file: This WAV is incomplete.	Scratch LIVE expected more data in the file, but found none. This could be because the file was incorrectly truncated or because the data in the file is corrupt, causing Scratch LIVE to incorrectly estimate the amount of data present in the file.
Corrupt file: This file contains corrupt blocks.	This file contains blocks of data that report their size to be zero. This message was inserted to identify files that might cause lockups on previous versions of Scratch LIVE.
Corrupt file: This song contains no audio data.	Scratch LIVE could not find any audio in this file. Please check to make sure this file contains audio in a format that Scratch LIVE supports.
Corrupt file: This song contains invalid samples.	This file contains samples of audio that are too small to represent accurately and will therefore be truncated to zero. This should not result in any audible audio artifacts, but could cause audio dropouts on earlier versions of Scratch LIVE.

FADER CLEANING

With heavy use in harsh environments, the fader may need lubrication. This treatment extends longevity and can make a used fader as good as new. The fader assembly must be removed from the MP 4 for proper cleaning. We recommend any of the following cleaning solutions:

- **Caig DeoxIT FaderLube F100 spray lubricant**
- **Caig DeoxIT FaderLube F5 spray cleaner**
- **CRC 2-26** (www.crcindustries.com)

Order CaiLube MCL® from:
CAIG Laboratories, Inc.
12200 Thatcher Ct.
Poway, CA 92064
Phone: 858-486-8388
Fax: 858-486-8398
Web: www.caig.com

CLEANING INSTRUCTIONS

A. Fader assembly replacement (part #11646)

1. Unplug the MP 4.
2. Remove the bottom cover.
3. Remove the fader screws from the front panel.
4. Draw fader assembly out through the bottom.
5. Remove ribbon cable from old fader.
6. Attach ribbon cable to new fader.
7. Screw onto front panel
8. Replace bottom cover.

B. Fader cleaning

1. Hold the fader assembly away from the mixer.
2. Position the fader at mid-travel.
3. Spray cleaner/lubricant into both ends of the fader in sufficient amounts to flush debris.
4. Move the fader over its full travel back and forth a few times.
5. Shake excess fluid from the fader assembly.
6. Wipe off excess fluid.